FIG. 1

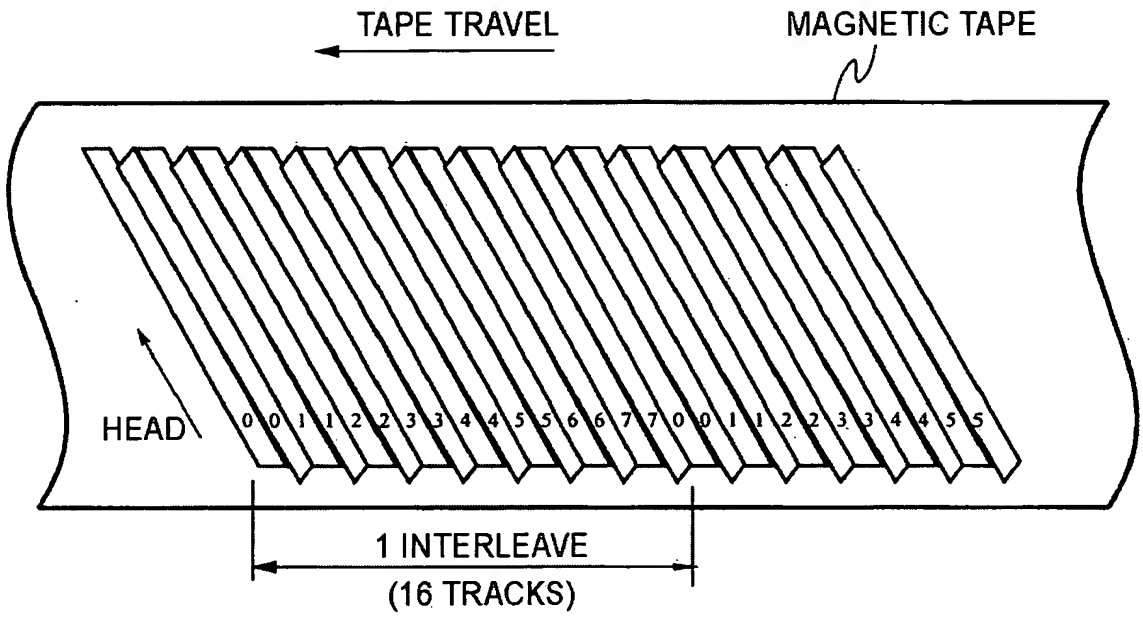


FIG. 2

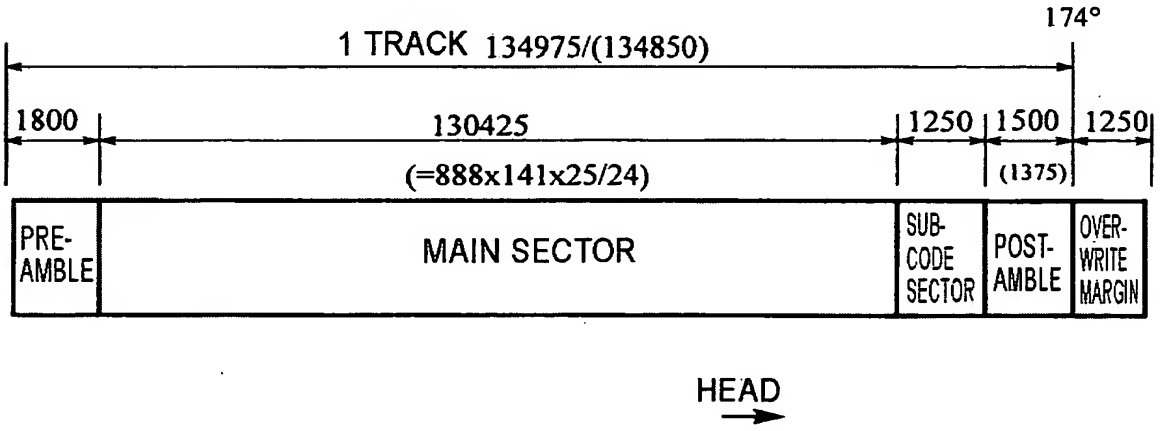


FIG. 3

RUN PATTERN	CODE WORD MSB LSB
RUN PATTERN A	0 0 0 1 1 1 0 0 0 1 1 1 0 0 0 0 0 1 1 1 0 0 0 1 1
RUN PATTERN B	1 1 1 0 0 0 1 1 1 0 0 0 1 1 1 1 1 0 0 0 1 1 1 0 0

FIG. 4

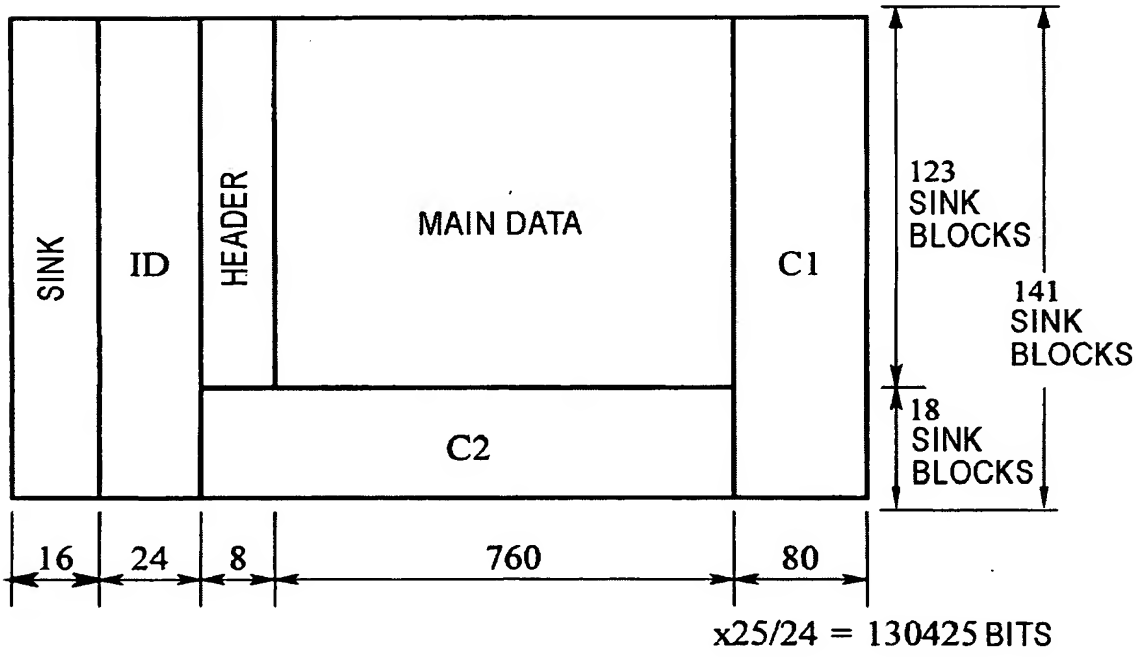


FIG. 5

	MSB LSB
SINK PATTERN M0	0 1 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
SINK PATTERN M1	1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1

FIG. 6

ID0		ID1	ID2
b7-5	b4 - 0	MSB	MSB

FORMAT TYPE	TRACK PAIR NUMBER (0 TO 31)	SINK BLOCK NUMBER	OVERWRITE PROTECT

FIG. 7

b7	b6	b5	b4	b3	b2	b1	b0
← DATA TYPE →							
0	NULL		RESERVED				
1	AUX		AUX MODE			DF/FRC	SBSC
2	PES-VIDEO		FULL/PARTIAL	CONTINUITY COUNTER			
3	PES-VIDEO		FULL/PARTIAL	CONTINUITY COUNTER			
4	TS-1H		JUMP FLAG		TIME STAMP		
5	TS-2H		CONTINUITY COUNTER				
6	SEARCH		RESERVED	SEARCH SPEED			SBSC
7	RESERVED		RESERVED				

SEARCH SPEED	
0	RESERVED
1	RESERVED
2	SEARCH x8
3	RESERVED
4	SEARCH x24
5-7	RESERVED

AUX MODE	b4-2	b1
0	AUX-V	FRC
1	AUX-A	RESERVED
2	PES-PSI 1	RESERVED
3	PES-PSI 2	RESERVED
4	AUX-SYSTEM (ECCTB)	DF
5	AUX-M	FRC
6,7	RESERVED	RESERVED

FIG. 8

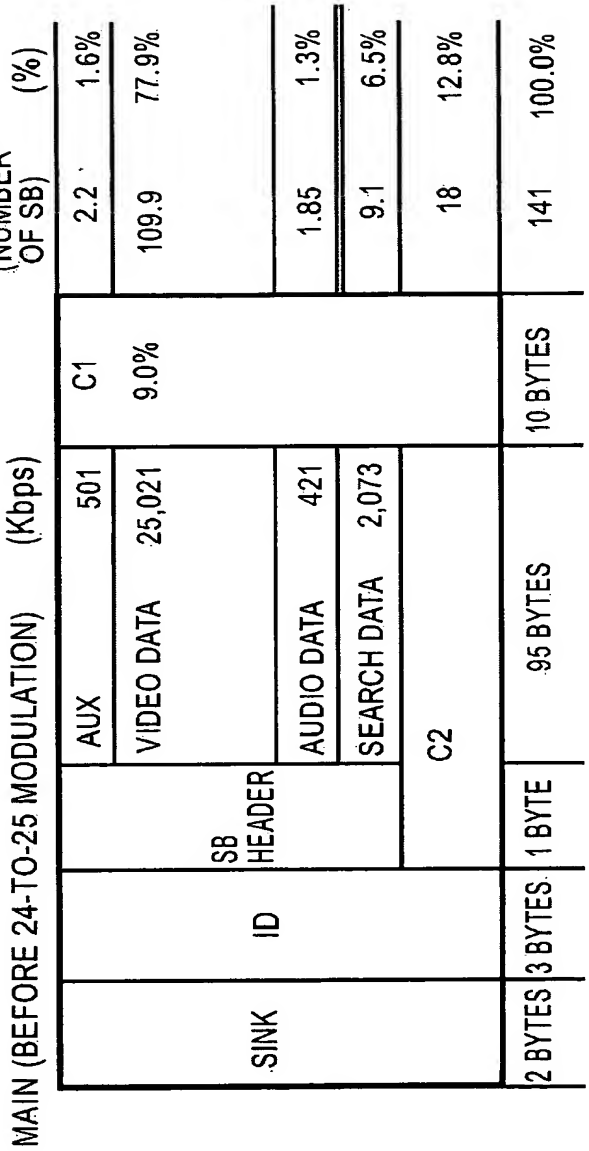

MAIN (BEFORE 24-TO-25 MODULATION)
(Kbps)
(NUMBER OF SB)
(%)
SINK
ID
SB HEADER
AUX
501
2.2
1.6%
VIDEO DATA
25,021
109.9
77.9%
AUDIO DATA
421
1.85
1.3%
SEARCH DATA
2,073
9.1
6.5%
C2
18
12.8%
C1
9.0%
2 BYTES
3 BYTES
1 BYTE
95 BYTES
10 BYTES
141
100.0%

FIG. 9

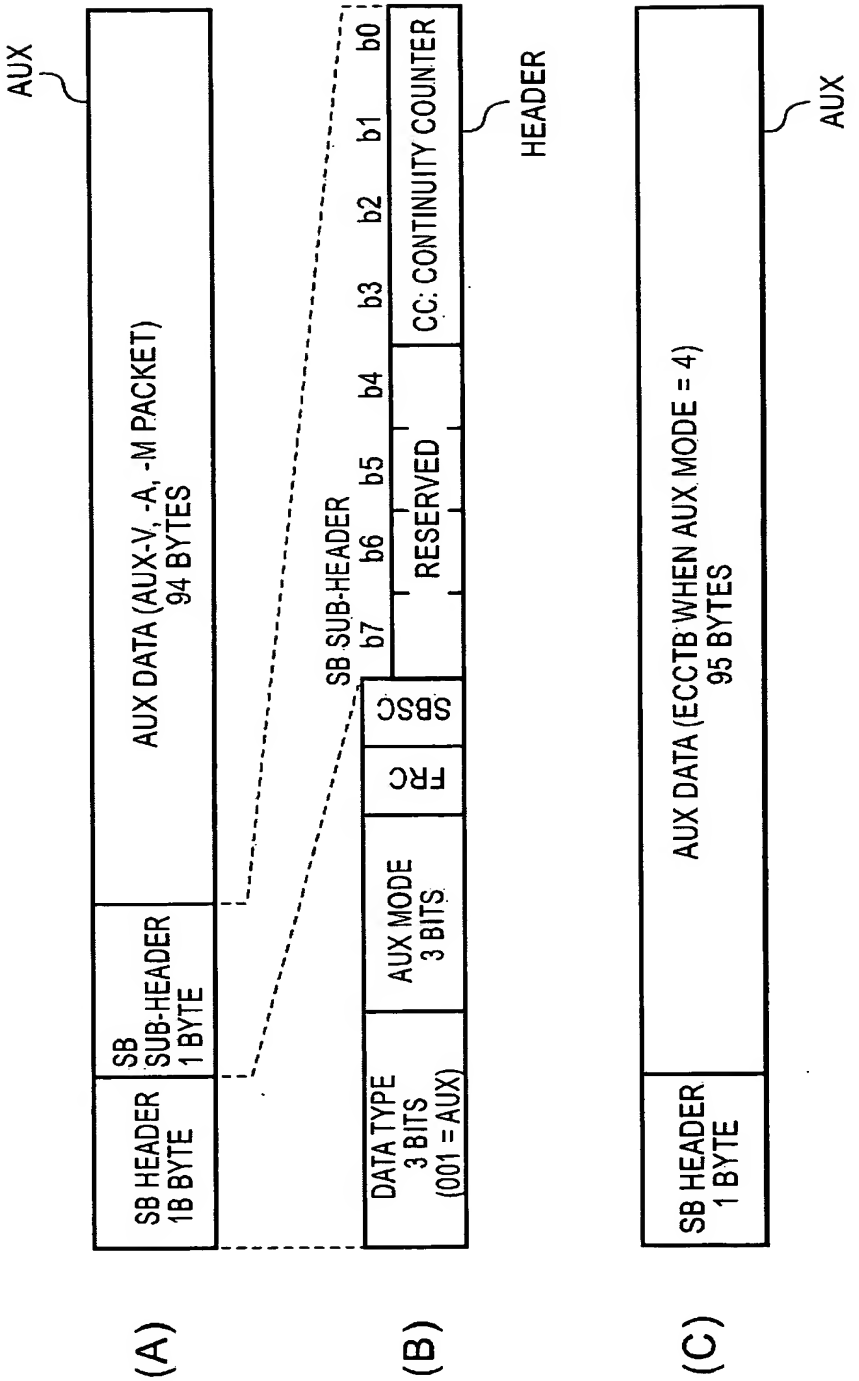

AUX
SB HEADER 1B BYTE
SB SUB-HEADER 1 BYTE
AUX DATA (AUX-V, -A, -M PACKET) 94 BYTES
(A)
SB SUB-HEADER
b7 b6 b5 b4 b3 b2 b1 b0
DATA TYPE 3 BITS (001 = AUX)
AUX MODE 3 BITS
TRC
SBSC
RESERVED
CC: CONTINUITY COUNTER
HEADER
(B)
SB HEADER 1 BYTE
AUX DATA (ECCTB WHEN AUX MODE = 4) 95 BYTES
AUX
(C)

FIG. 10

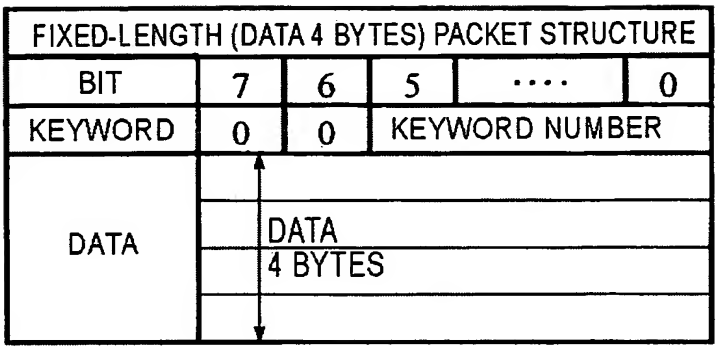

FIXED-LENGTH (DATA 4 BYTES) PACKET STRUCTURE
BIT
7
6
5
····
0
KEYWORD
0
0
KEYWORD NUMBER
DATA
DATA
4 BYTES

FIG. 11

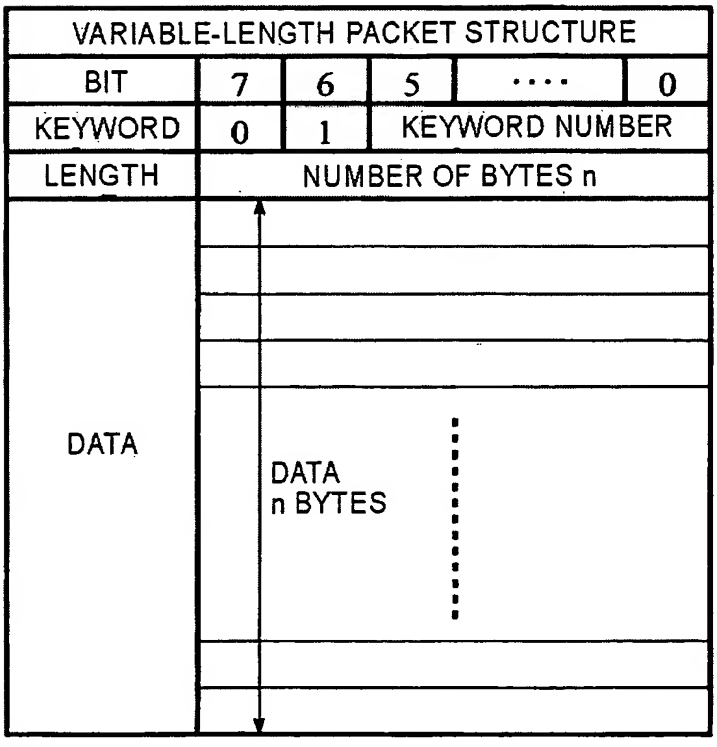

VARIABLE-LENGTH PACKET STRUCTURE
BIT
7
6
5
····
0
KEYWORD
0
1
KEYWORD NUMBER
LENGTH
NUMBER OF BYTES n
DATA
DATA
n BYTES

FIG. 12

FOUR-BYTE FIXED LENGTH

KEY-WORD	AUX TYPE	CONTENT	REMARKS
0	SUB	TTC	FOR 1 PACKET OF 5 BYTES IN SUB-CODE
1	SUB	BINARY GROUP	
2	SUB	PART NUMBER	
3	SUB	CHAPTER START	
4	SUB	ATNF (ATN+FLG)	
5	SUB	RECORDING DATE	
6	SUB	RECORDING TIME	
7	SUB	ETN	
8	RES.	RESERVED	
:	RES.	RESERVED	
62	RES.	RESERVED	
63	RES.	NO-INFORMATION PACK	USED WHEN NO VALID DATA

FIG. 13

VARIABLE-DATA-LENGTH PACKET

KEY-WORD	AUX TYPE	CONTENT	REMARKS
64	AUX-A	AUD-FRAM	PES-AUD & EDIT INFO.
65	AUX-A	RESERVED	
66	AUX-A	RESERVED	
67	AUX-A	RESERVED	
68	AUX-V	VID-FRAM	PES-VIDEO & EDIT INFO.
69	AUX-V	RESERVED	
70	AUX-V	RESERVED	
71	AUX-V	RESERVED	
72	AUX-V	UMID	64-BYTE DATA
73	AUX-V	DV PACKET	COMPATIBLE-WITH-DV 5-BYTE PACKET MAXIMUM OF 18
74	AUX-V	RESERVED	
75	AUX-V	RESERVED	
76	AUX-V	RESERVED	
77	AUX-V	ASCII CHARACTER MESSAGE	
78	AUX-V	SHIFT JIS MESSAGE	JAPANESE TEXT
79	AUX-V	BINARY	
80	SYSTEM	ECCTB	EDIT INFO/SUB-CODE DATA
81	SYSTEM	RESERVED	
82	SYSTEM	RESERVED	
83	SYSTEM	RESERVED	
84	RESERVED	RESERVED	
:	RESERVED	RESERVED	
119	RESERVED	RESERVED	
120	AUX-M	RESERVED	
121	AUX-M		
122	AUX-M		
123	AUX-M		
:	AUX-M		
126	AUX-M		
127	AUX-N	NULL	NULL PACKET

FIG. 14

DATA #	CONTENT	NUMBER OF BYTES	REMARKS
0.	AUDIO FRAME KEYWORD PACKET	1	KEYWORD = 64
1.	LENGTH	1	92
2.	VTR MODE	1	OPERATION MODE FOR TS OUTPUT
3.	ATNF (FLE+ATN+FLG)	5	SAME CONTENT AS COMBINED VID-FRAME
8.	EXTENDED TRACK NUMBER	3	SAME CONTENT AS COMBINED VID-FRAME
11.	TTC	5	SAME CONTENT AS COMBINED VID-FRAME
16.			
16.	DATE/TIME ORIGINAL	10	IN THE ORDER OF DATE(5B) + TIME(5B) KW 1B+
26.	DATE/TIME MAIN	8	IN THE ORDER OF DATE(4B) + TIME(4B)
34.	GENERATION NUMBER	1	INCLUDING COPYRIGHT 2 BITS
35.			
35.	STATUS INFORMATION 1 (WITH HISTORY)	1	CONNECTING POINT INCLUDING EDITING: 0, 1 TO 7f COUNT UP
36.	STATUS INFORMATION 2 (WITHOUT HISTORY)	1	STARTING POINT OF RECORDING DURING EDITING: 0, 1 TO 7f COUNT UP
37.	AUDIO MODE		10 (TOTAL OF BYTES)
37.	AUDIO FRAME SIZE	2	NUMBER OF SAMPLES OF AAU (MEANINGFUL ONLY IN LPCM)
39.	SAMPLING FREQUENCY	0.375	
39.	QUANTIZATION	0.625	(5 BITS) VALUE = 0 TO 31 BITS
40.	AUDIO CHANNEL MODE	0.5	
40.	AUDIO COMPRESSION MODE	0.5	
41.	BIT-RATE INDEX	0.5	
41.	RESERVED	0.5	
42.	AUDIO SOURCE CONTROL	1	APPROXIMATELY THE SAME MEANING AS DV
43.			
43.	RESERVED	4	
47.	DECODING REFERENCE INFORMATION		11 (TOTAL OF BYTES)
47.	AUDIO FRAME NUMBER (FIRST)	3	INTEGRATED VALUE OF GOAF
50.	NUMBER OF AUDIO FRAMES	1	GOAF: NUMBER OF AAUS CONTINUOUSLY RECORDED
51.	PTS	5	
56.	AUDIO PTS COMPENSATION	2	
58.			
58.	RESERVED (AUD-FRAME)	3	
94.			
	TOTAL	94	

FIG. 15

DATA #	CONTENT	NUMBER OF BYTES	REMARKS
0.0	VIDEO FRAME KEYWORD PACKET	1	KEYWORD = 68
1.0	LENGTH	1	92
2.0	VTR MODE	1	OPERATION MODE FOR TS OUTPUT
3.0	ATNF (FLE+ATN+FLG)	5	INFORMATION CONCERNING ETN (EFN) POSITION CORRESPONDING TO DTS TIME
8.0	ETN 8 (EXTENDED TRACK NUMBER)	3	EFN CORRESPONDING TO TTC AT DTS TIME
11.0	TTC	5	TTC AT DTS TIME
16.0	BINARY GROUP	5	FOR CORRESPONDING FRAME WHEN TTC IS TC
21.0			
21.0	DATE/TIME ORIGINAL	10	IN THE ORDER OF DATE(5B) + TIME(5B) KW 1B
31.0	DATE/TIME MAIN	8	IN THE ORDER OF DATE(4B) + TIME(4B)
39.0	GENERATION NUMBER	1	INCLUDING COPYRIGHT 2 BITS
40.0			
40.0	STATUS INFORMATION 1 (WITH HISTORY)	1	CONNECTING POINT INCLUDING EDITING: 0, 1 TO 7f COUNT UP
41.0	STATUS INFORMATION 2 (WITHOUT HISTORY)	1	STARTING POINT OF RECORDING DURING EDITING: 0, 1 TO 7f COUNT UP
42.0	SEARCH DATA MODE	1	SEARCH RECORDING PATTERN
43.0			
43.0	VIDEO PACK INFORMATION		11
43.0	PACK FRAME NUMBER	1	NUMBER OF FRAMES IN PACK, NO FF INFORMATION
44.0	Picture_Number_from_I-pic	1	NUMBER OF FRAMES COUNTING FROM ADJACENT I PICTURE
45.0	FIRST FRAME HEADER		
45.0	DATA-H	1	
46.0	VBV DELAY	2	
48.0	HEADER SIZE	1	FOR CORRECTION OF DIFFERENCE IN VBV DELAY HEADER SIZE
49.0	DTS	5	
54.0	VIDEO MODE	16	
70.0			
70.0	EXTENDED DV PACK ENABLE	1	DV PACK ENABLE b0 TO b2: 1 TO 3 ENABLE: 1
71.0	EXTENDED DV PACK	15	CLOSED CAPTURE 4 BYTES + 1KW/FRAME x3
86.0			
86.0	RESERVED (VID-FRAME)	8	
94.0			
	TOTAL	94	

FIG. 16

SEARCH DATA (SEARCH RECORDING PATTEN)
b0: x4 OPTION
b1: x8 MAIN DATA
b2: x8 HELPER DATA
b3: x16 OPTION
b4: x24 OPTION
b5: x32 OPTION
b6 TO 7: RESERVED

FIG. 17

DATA-H	b3-0	
0: RESERVED	8: NO PICTURE	STUFFING PACK
1: I PICTURE	9: UNEDITABLE	
2: P PICTURE	a: RESERVED	
3: B PICTURE	b: RESERVED	A-END
4: COPY PICTURE	c: RESERVED	REC-END
5: V-END	d: RESERVED	AUD
6: RESERVED	e: RESERVED	AUX
7: NO INFORMATION	f: RESERVED	

FIG. 18

CONTENT	NUMBER OF BYTES	REMARKS
ECCTB PACKET HEADER	1	DATA = 80
LENGTH (PACKET DATA)	1	DATA = 93
SUB-CODE INFORMATION		SAME CONTENT AS IN SUB-CODE IN FIRST ECC TRACK
ATANF (FLE+ATN+FLG)	5	RECORD VALUE OF FIRST ECC TRACK
EXTENDED TRACK NUMBER	3	RECORD VALUE OF FIRST ECC TRACK
TTC	5	SAME AS SUB-CODE IN FIRST ECC TRACK
BINARY GROUP	5	WRITTEN IN THE SAME SUB-CODE AS IN TTC
DATE/TIME ORIGINAL	10	ORIGINAL DATE/TIME WITHOUT CHANGE EVEN AFTER COPYING (USED FOR DISPLAY)
DATE/TIME MAIN	8	
GENERATION NUMBER	1	ADD ONE EACH TIME LAST MODIFICATION IS UPDATED
EDITABLE HEADER MAP	25	
Picture_Number_from_I-pic	1	NUMBER OF FRAMES COUNTED FROM ADJACENT I PICTURE
FIRST EDITABLE HEADER		
DATA-H	1	PES VIDEO
VBV DELAY	2	
HEADER SIZE	1	FOR CORRECTION OF DIFFERENCE IN VBV DELAY HEADER SIZE
DTS	5	
CONTINUITY COUNTER	1	b7-4: AUDIO, b3-0: VIDEO
POSITION (SB)	1	AUD-FRAME PACKET (AUX POSITION TO BE EDITED)
POSITION (TRACK)	1	
SECOND EDITABLE HEADER		
DATA-H	1	PES VIDEO
VBV DELAY	2	
HEADER SIZE	1	FOR CORRECTION OF DIFFERENCE IN VBV DELAY HEADER SIZE
DTS	5	
CONTINUITY COUNTER	1	b7-4: AUDIO, b3-0: VIDEO
POSITION (SB)	1	AUDIO AUX
POSITION (TRACK)	1	(POSITION OF FIRST DATA IN SECOND EDITABLE HEADER)
EDIT STATUS ECC	1	COUNT UP TO 0, 7f FOR EVERY ECC AT EDITING POINT
SEARCH DATA MODE	1	SEARCH RECORDING PATTERN
SEARCH PCS	1	INDICATE SEARCH DATA RECORDING INFORMATION
SEARCH DATA BLOCK NUMBER	1	DATA DIVISION NUMBER AT x8 SPEED (1 TO 9) 00, FF: NO INFORMATION
VIDEO MODE	16	SAME CONTENT AS IN VID-frame AUDIO MODE
AUDIO MODE	10	SAME CONTENT AS IN AUD-frame VIDEO MODE
RESERVED	1	
TOTAL	95	

FIG. 19

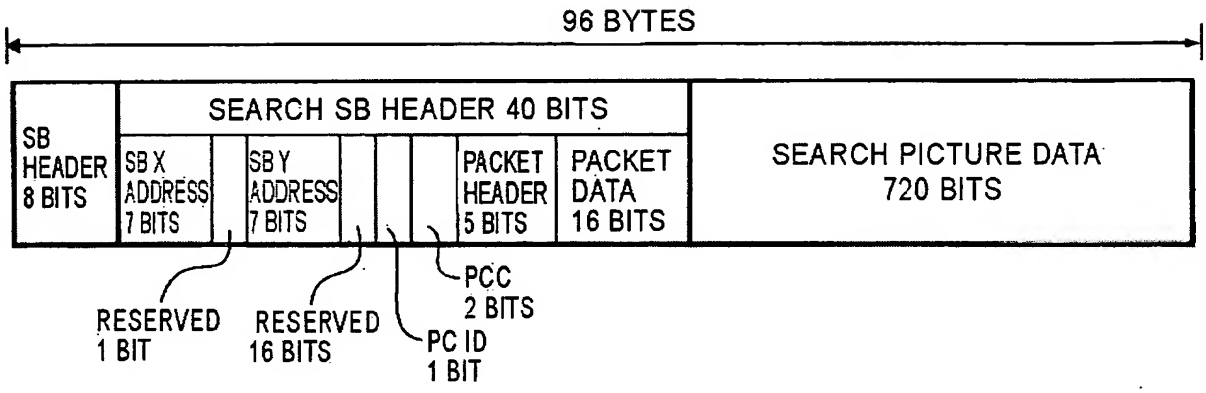


FIG. 20

PACKET HEADER	CONTENT	L/H	REMARKS	
0	SH	L	SEARCH HEADER (IMAGE INFORMATION)	
1	SH	H	SEARCH HEADER (IMAGE INFORMATION)	
2	TTC	L	CONTENT OF SUB-CODE	FOR DISPLAY
3	TTC	H		
4	RECORDING TIME	L		
5	RECORDING TIME	H		
6	RECORDING DATE	L		
7	RECORDING DATE	H		
8	ATN+FLG	L		FOR SEARCH POSITIONAL INFORMATION
9	ATN+FLG	H		
10	ETN	L		
11	ETN	H		
12	BINARY GROUP	L		
13	BINARY GROUP	H		
14	PART NO.	L	(FOR RECORDED TAPE)	
15	PART NO.	H	(FOR RECORDED TAPE)	
16	CHAPTER START	L	(FOR RECORDED TAPE)	
17	CHAPTER START	H	(FOR RECORDED TAPE)	
16~31	RESERVED		RESERVED	

FIG. 21

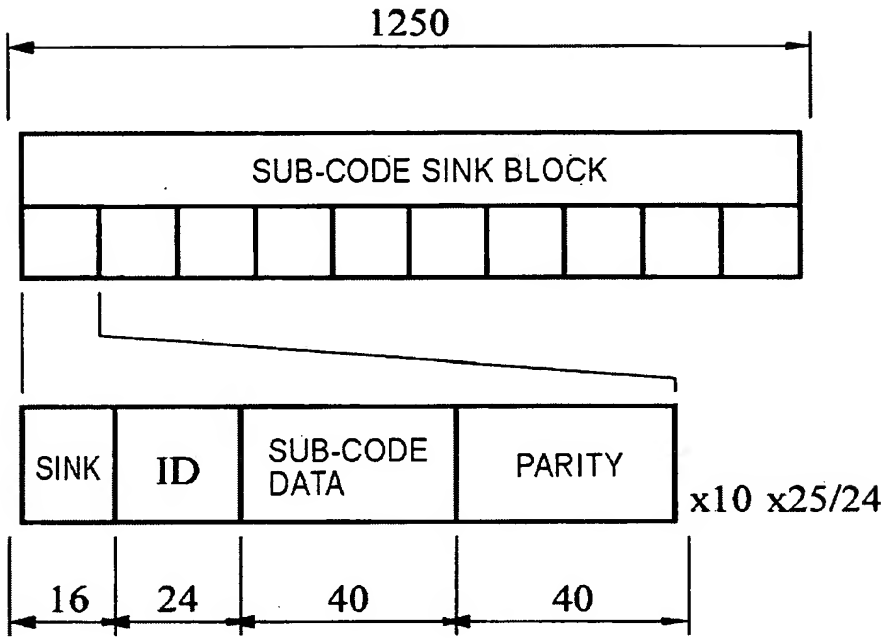


FIG. 22

	MSB LSB
SINK PATTERN S0	1 0 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
SINK PATTERN S1	0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1

FIG. 23

SB No.	ID0		ID1		ID2	
			MSB	LSB	MSB	LSB
0	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
1	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
2	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
3	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
4	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
5	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
6	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
7	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
8	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	
9	F_TYPE	TRACK PAIR NUMBER	RESERVED	SB NUMBER	OVERWRITE PROTECT	

FIG. 24

	EVEN-NUMBERED PAIR TRACK 0		ODD-NUMBERED PAIR TRACK 1	
	0	1	2	3
SB No.	FIRST EVEN-NUMBERED PAIR TRACK	SECOND EVEN-NUMBERED PAIR TRACK	FIRST ODD-NUMBERED PAIR TRACK	SECOND ODD-NUMBERED PAIR TRACK
0	FLE+ATNF	FLE+ATNF	FLE+ATNF	FLE+ATNF
1	ETN	ETN	TTC	TTC
2	TTC	TTC	RECORDING DATE	RECORDING DATE
3	NO INFORMATION	NO INFORMATION	RECORDING TIME	RECORDING TIME
4	FLE+ATNF	FLE+ATNF	FLE+ATNF	FLE+ATNF
5	TTC	TTC	ETN	ETN
6	ETN	ETN	TTC	TTC
7	TTC	TTC	RECORDING DATE	RECORDING DATE
8	NO INFORMATION	NO INFORMATION	RECORDING TIME	RECORDING TIME
9	FLE+ATNF	FLE+ATNF	FLE+ATNF	FLE+ATNF

FIG. 25

BYTE POSITION NUMBER	FIXED DATAAREA (RECORDED IN NON-PACKET STRUCTURE)							
	7	6	5	4	3	2	1	0
D0	FLE							
D1							LSB	BF
D2	ATN 23 BITS (BINARY)							
D3	MSB							
D4	FLG							

FIG. 26

FLE			
BIT	NAME	CONTENT OF DATA	DETAILED DATA
7	SF1	PRESENCE OF x8 SEARCH HELPER	0: WITH HELPER, 1: WITHOUT HELPER
6	SF2	PRESENCE OF x24 SEARCH DATA	0: WITH DATA, 1: WITHOUT DATA
5 4	SPH	x24 SEARCH PHASE (0 – 2)	PERIOD COUNTER OF 0, 1, AND 2 REMAINDER OF DIVIDING QUOTIENT GIVEN BY DIVIDING ETN BY 16 BY 3
3 2 1 0	EPO	EDIT PICTURE OFFSET (0 – 15)	PHASE DIFFERENCE FROM MAIN DATA VARY FOR EVERY FRAME 15 = NO INFORMATION

FIG. 27

FLG			
BIT	NAME	CONTENT OF DATA	DETAILED DATA
7	I	INDEX ID	SEARCH POINT MARK (CORRESPONDING TO DV)
6	-	RESERVED	
5	P	PP ID	MARK FOR STILL-PICTURE SEARCH (CORRESPONDING TO DV)
4	-	RESERVED	
3	EF	REC END ECC FLAG	GENERATE USING ALTAIR
2 1 0	PF	PICTURE TYPE FLAG (0 – 7)	GENERATE USING ALTAIR 1 = I PICTURE, 2 = B PICTURE, 3 = P PICTURE, 4 = C PICTURE, 5 = V-END, 7 = NO INFORMATION

FIG. 28

BYTE POSITION NUMBER	ETE							
	7	6	5	4	3	2	1	0
D0	0	0	7					
D1								LSB
D2	ETN 24 BITS							
D3	MSB							
D4	RESERVED							

FIG. 29

	TITLE 3: TIME CODE : TTC OR TC							
	7	6	5	4	3	2	1	0
PC0	0	0	0	1	0	0	1	1
PC1	S2/BF	S1	FRAME POSITIVE POSITION		FRAME NEGATIVE POSITION			
PC2	S3	SECOND POSITIVE POSITION			SECOND NEGATIVE POSITION			
PC3	S4	MINUTE POSITIVE POSITION			MINUTE NEGATIVE POSITION			
PC4	S6	S5	HOUR POSITIVE POSITION		HOUR NEGATIVE POSITION			

FIG. 30

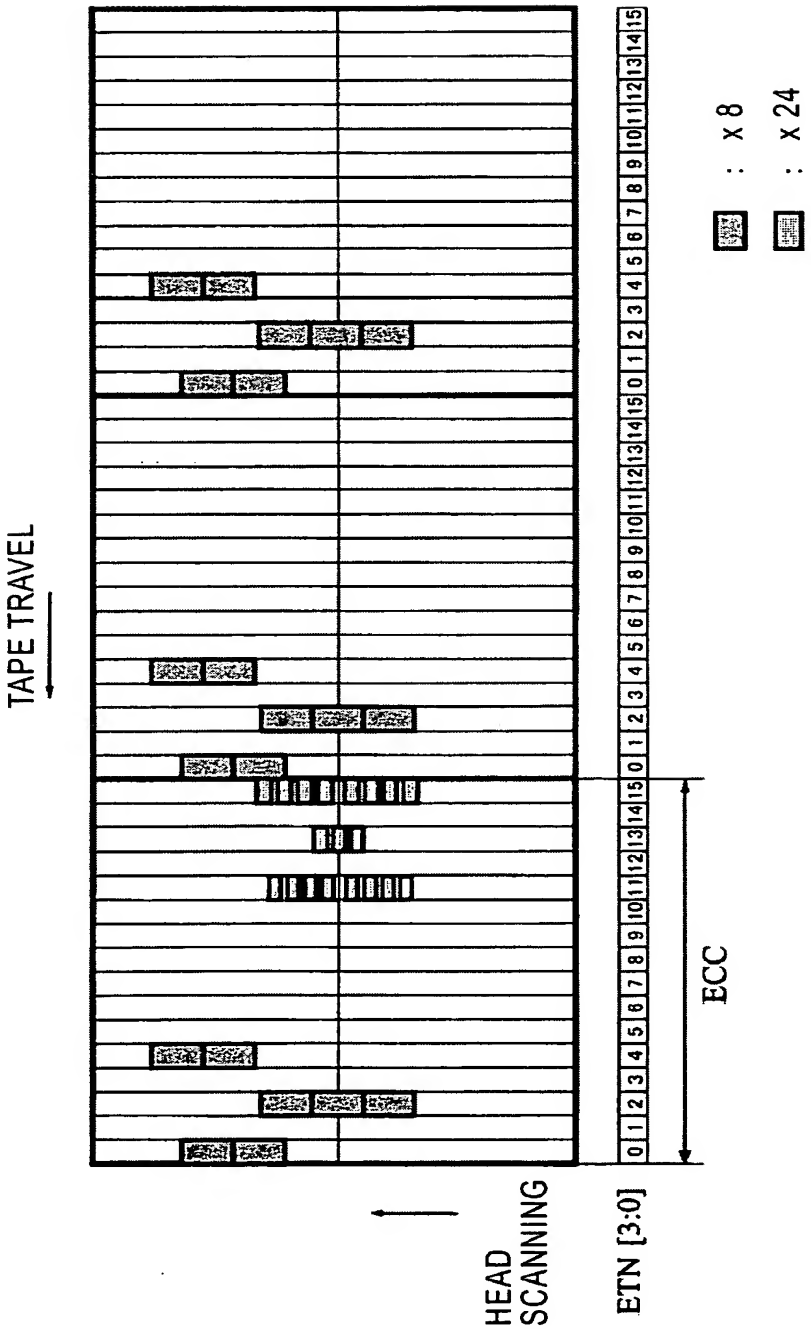


FIG. 31

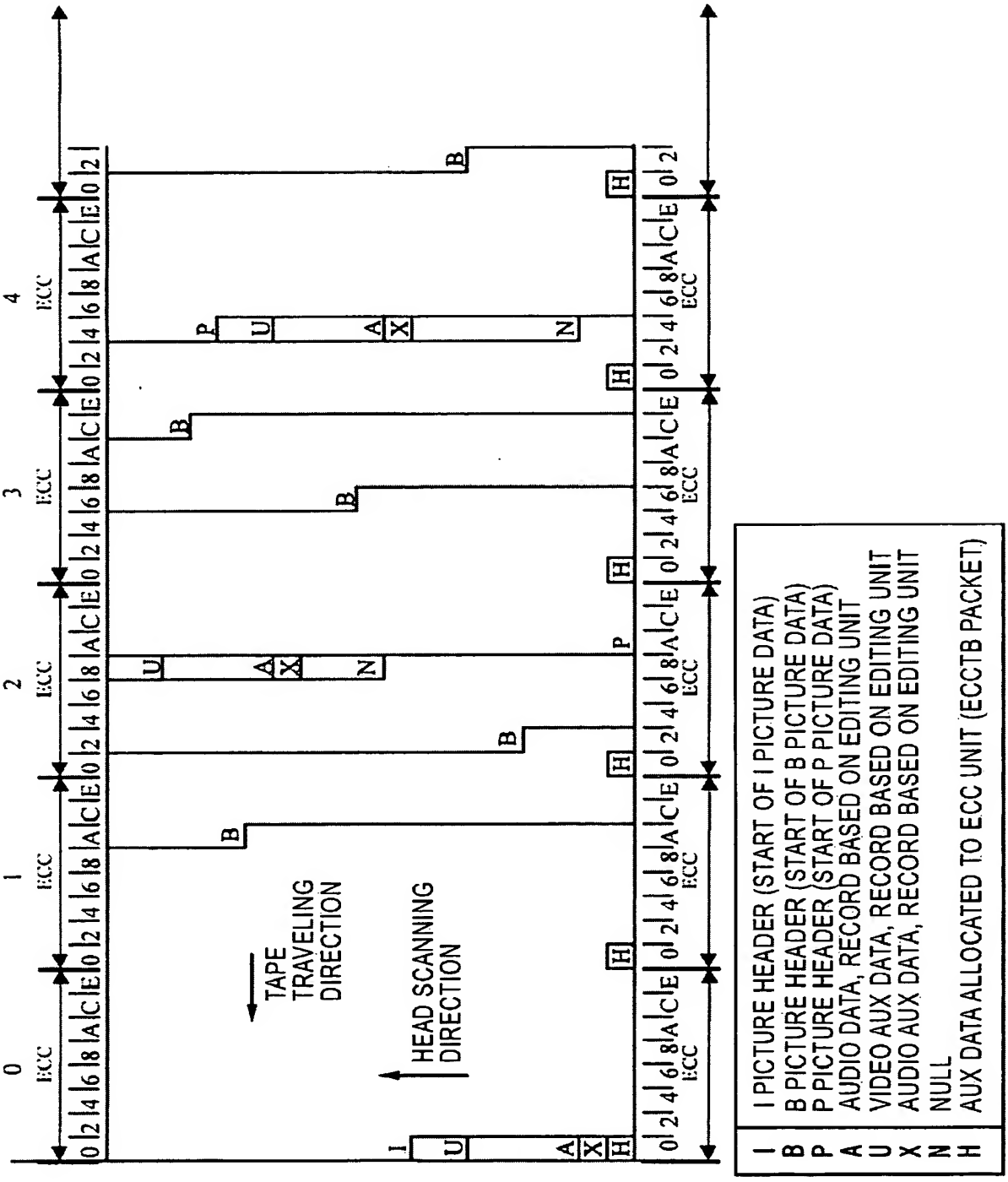

0
1
2
3
4
ECC
TAPE TRAVELING DIRECTION
HEAD SCANNING DIRECTION
I PICTURE HEADER (START OF I PICTURE DATA)
B PICTURE HEADER (START OF B PICTURE DATA)
P PICTURE HEADER (START OF P PICTURE DATA)
AUDIO DATA, RECORD BASED ON EDITING UNIT
VIDEO AUX DATA, RECORD BASED ON EDITING UNIT
AUDIO AUX DATA, RECORD BASED ON EDITING UNIT
NULL
AUX DATA ALLOCATED TO ECC UNIT (ECCTB PACKET)

FIG. 32

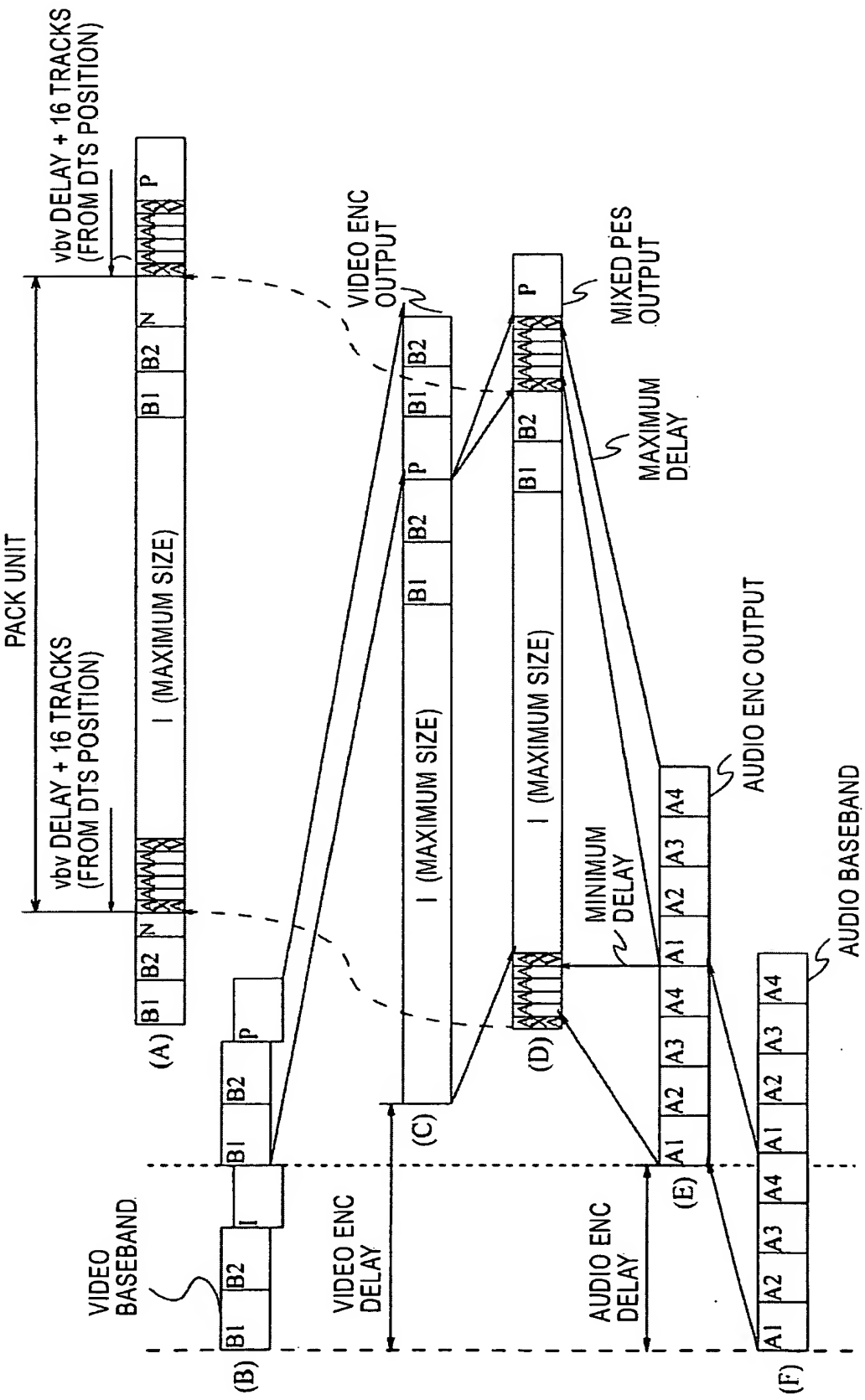

vbv DELAY + 16 TRACKS
(FROM DTS POSITION)
PACK UNIT
vbv DELAY + 16 TRACKS
(FROM DTS POSITION)
I (MAXIMUM SIZE)
VIDEO ENC
OUTPUT
MIXED PES
OUTPUT
MAXIMUM
DELAY
MINIMUM
DELAY
AUDIO ENC OUTPUT
AUDIO BASEBAND
VIDEO
BASEBAND
VIDEO ENC
DELAY
AUDIO ENC
DELAY
(A)
(B)
(C)
(D)
(E)
(F)

FIG. 33

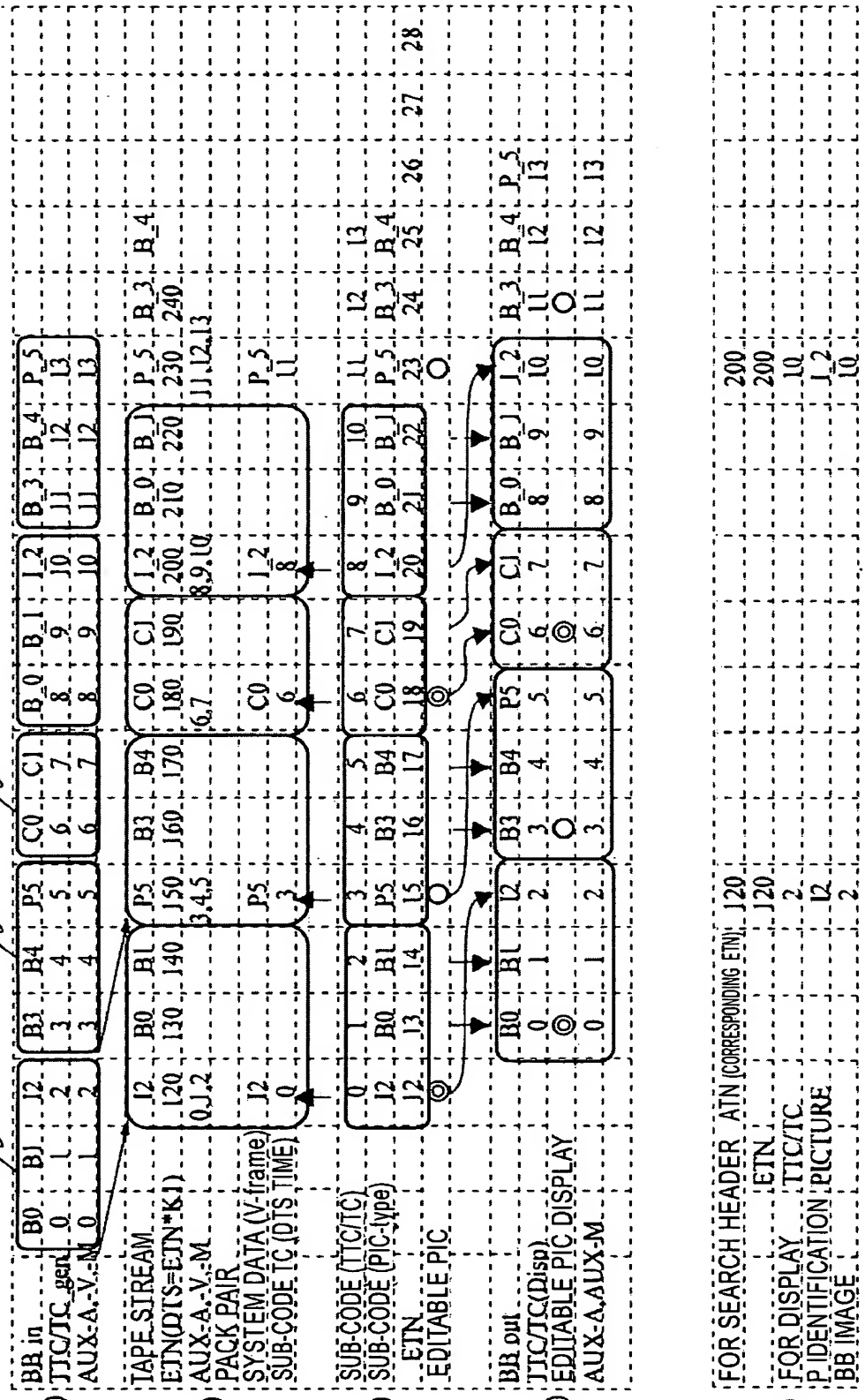
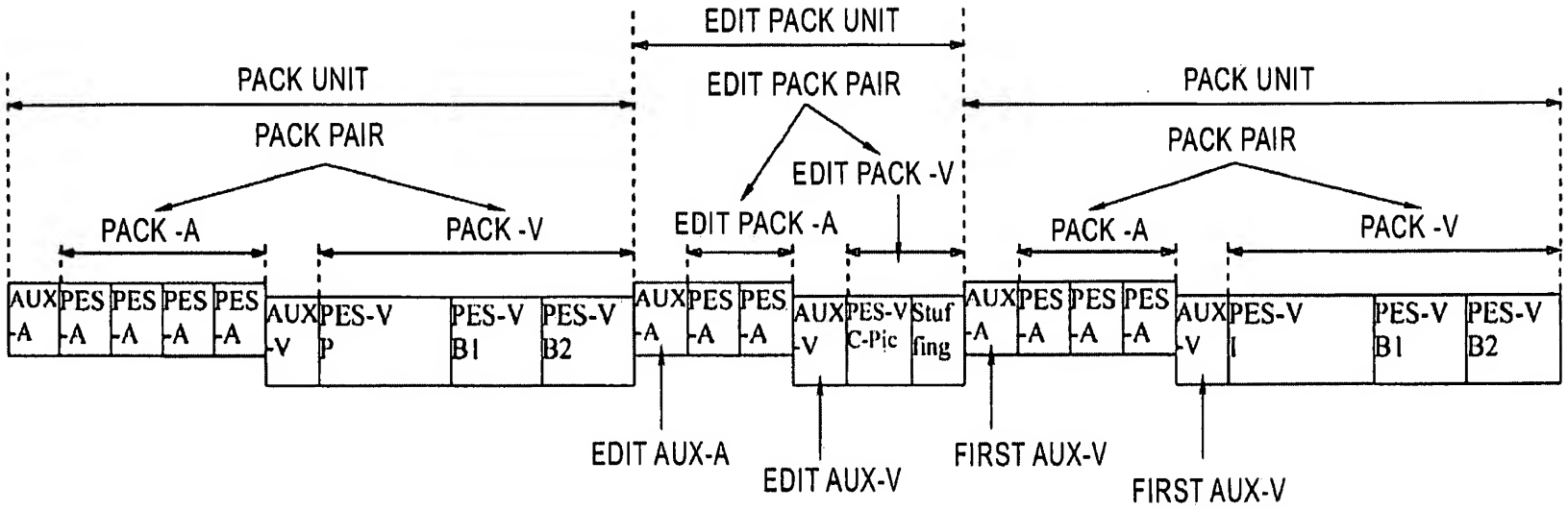

P1
P2
EP1
(A)
BB in
JTC/TC_gen
AUX-A,-V,-M
(B)
TAPE STREAM
ETN(DTS=ETN*K1)
AUX-A,-V,-M
PACK PAIR
SYSTEM DATA (V-frame)
SUB-CODE TC (DTS,TIME)
(C)
SUB-CODE (TTC/TC)
SUB-CODE (PIC-type)
ETN
EDITABLE PIC
(D)
BB out
JTC/TC(Disp)
EDITABLE PIC DISPLAY
AUX-A,AUX-M
(E)
FOR SEARCH HEADER ATN (CORRESPONDING ETN)
ETN
FOR DISPLAY TTC/TC
P IDENTIFICATION PICTURE
BB IMAGE

FIG. 34



COUPLING UNIT	PACK	AUX-A AT EDITING POINT	EDIT AUX-A
COUPLING UNIT PAIR	PACK-PAIR	AUX-V AT EDITING POINT	EDIT AUX-V
COUPLING UNIT AUDIO	PACK -A		
COUPLING UNIT VIDEO	PACK -V	AUDIO IMMEDIATELY AFTER EDITING POINT	FIRST PACK-A
COUPLING UNIT AT EDITING POINT	EDIT PACK	AUX-A IMMEDIATELY AFTER EDITING POINT	FIRST AUX-A
COUPLING UNIT PAIR AT EDITING POINT	EDIT PACK PAIR	AUX-V IMMEDIATELY AFTER EDITING POINT	FIRST AUX-V
COUPLING UNIT AUDIO AT EDITING POINT	EDIT PACK -A	INSERTION UNIT AT EDITING POINT	EDIT PACK UNIT
COUPLING UNIT VIDEO AT EDITING POINT	EDIT PACK -V	EDITING UNIT	PACK UNIT

FIG. 35

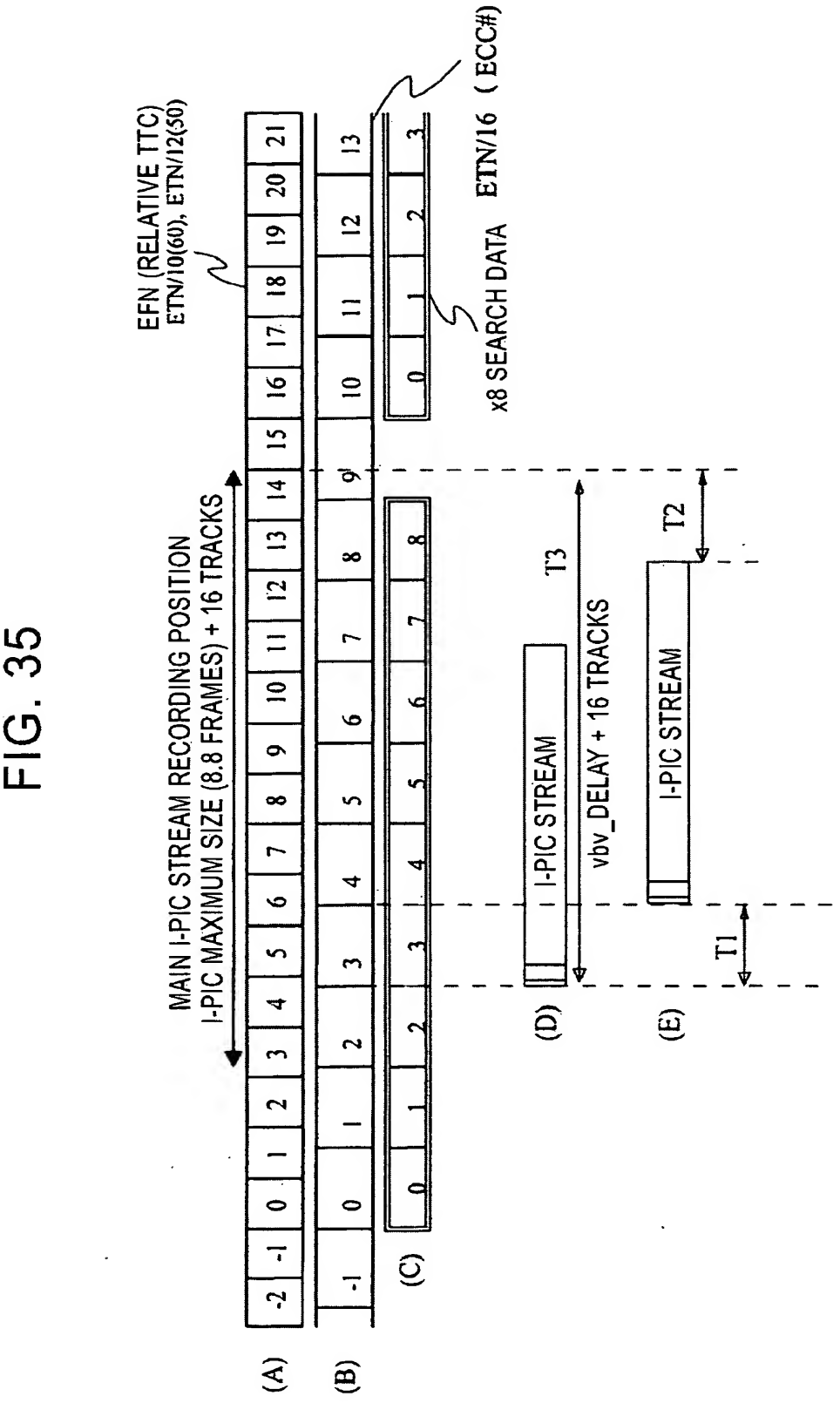

EFN (RELATIVE TTC)
ETN/10(60), ETN/12(50)
x8 SEARCH DATA ETN/16 (ECC#)
MAIN I-PIC STREAM RECORDING POSITION
I-PIC MAXIMUM SIZE (8.8 FRAMES) + 16 TRACKS
(A)
(B)
(C)
(D)
(E)
I-PIC STREAM
vbv_DELAY + 16 TRACKS
T3
T2
T1
I-PIC STREAM

FIG. 36

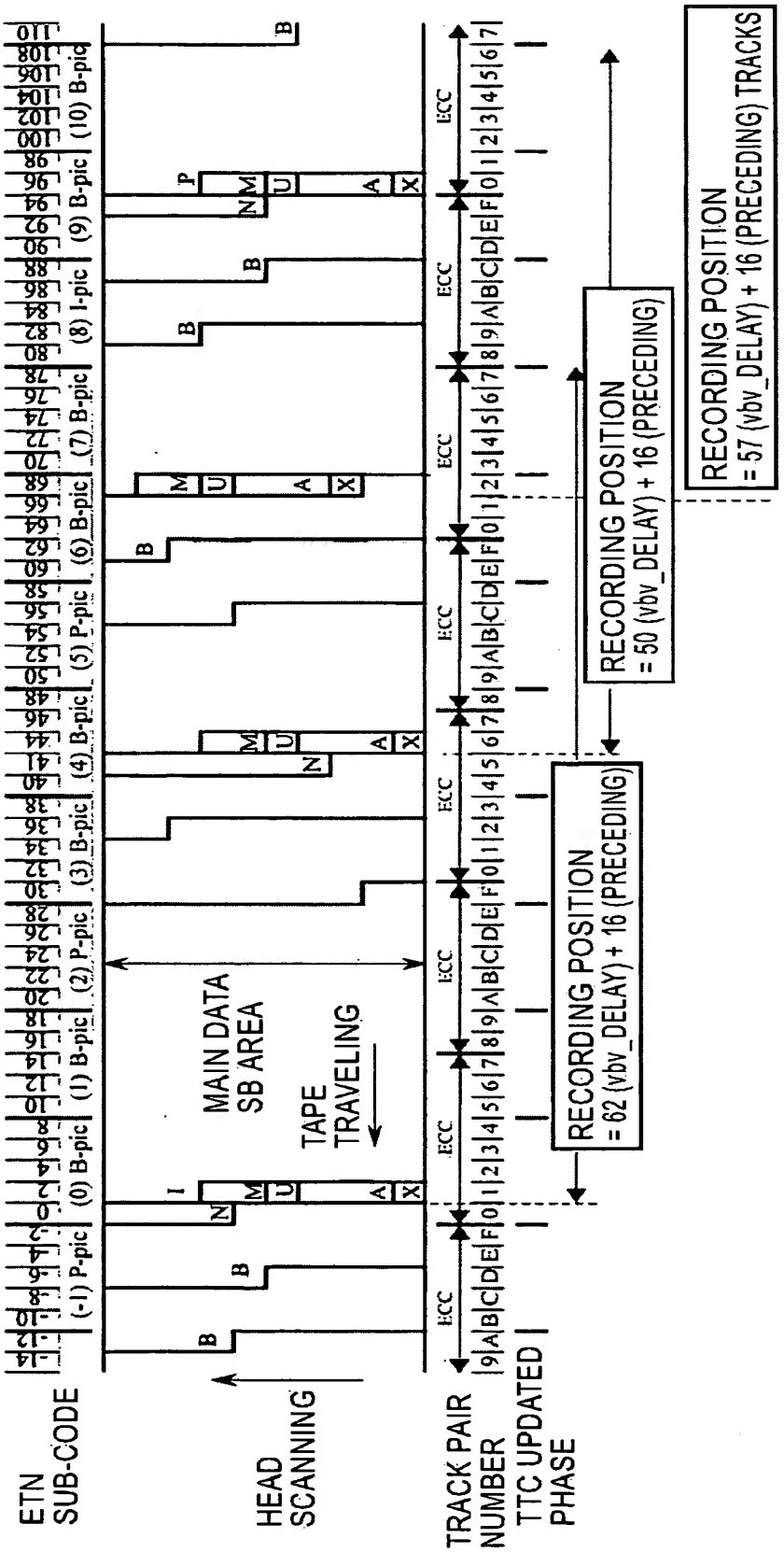

A
B
C
ETN SUB-CODE
(-1) P-pic
(0) B-pic
(1) B-pic
(2) P-pic
(3) B-pic
(4) B-pic
(5) P-pic
(6) B-pic
(7) B-pic
(8) I-pic
(9) B-pic
(10) B-pic
HEAD SCANNING
MAIN DATA SB AREA
TAPE TRAVELING
TRACK PAIR NUMBER
TTC UPDATED PHASE
ECC
RECORDING POSITION
= 62 (vbv_DELAY) + 16 (PRECEDING)
RECORDING POSITION
= 50 (vbv_DELAY) + 16 (PRECEDING)
RECORDING POSITION
= 57 (vbv_DELAY) + 16 (PRECEDING) TRACKS

FIG. 37

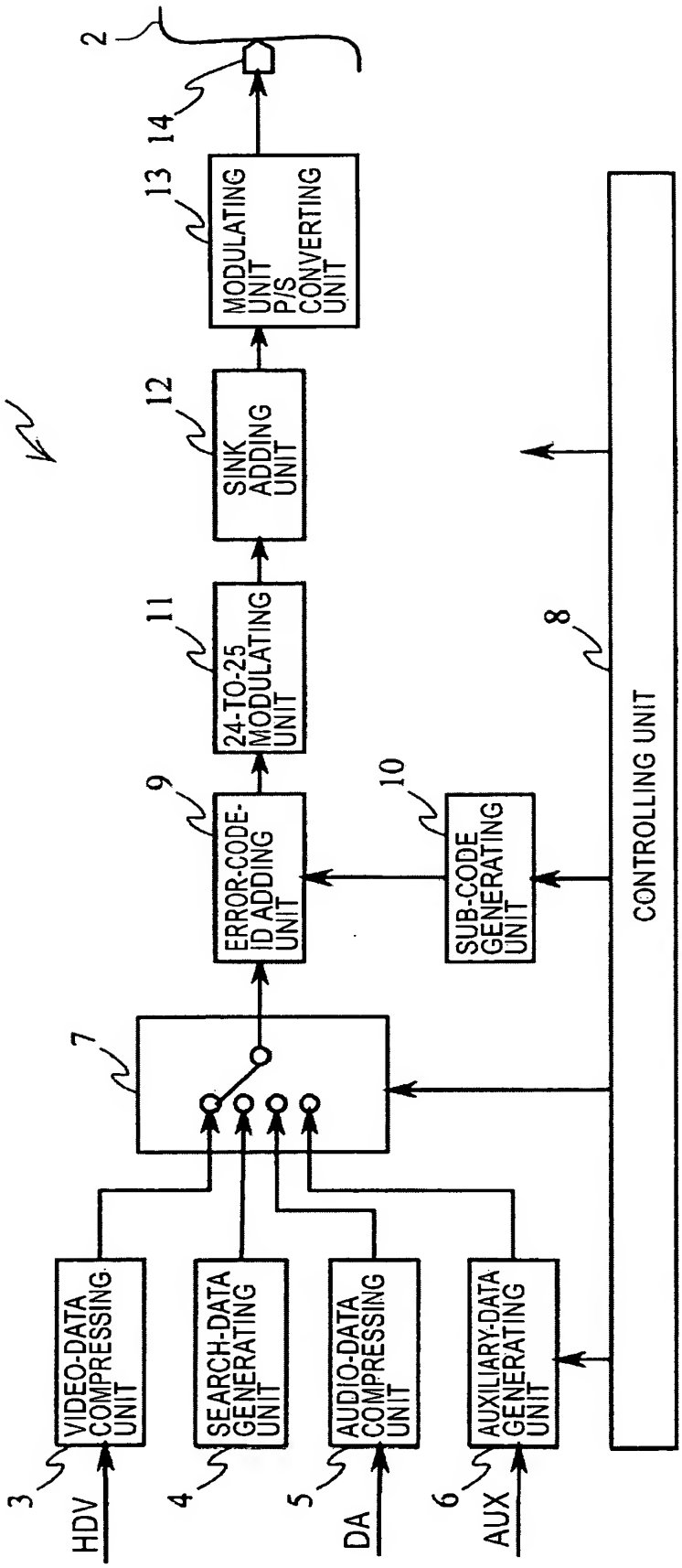

1
2
3
4
5
6
7
8
9
10
11
12
13
14
HDV
DA
AUX
VIDEO-DATA COMPRESSING UNIT
SEARCH-DATA GENERATING UNIT
AUDIO-DATA COMPRESSING UNIT
AUXILIARY-DATA GENERATING UNIT
ERROR-CODE-ID ADDING UNIT
SUB-CODE GENERATING UNIT
24-TO-25 MODULATING UNIT
SINK ADDING UNIT
MODULATING UNIT P/S CONVERTING UNIT
CONTROLLING UNIT

FIG. 38

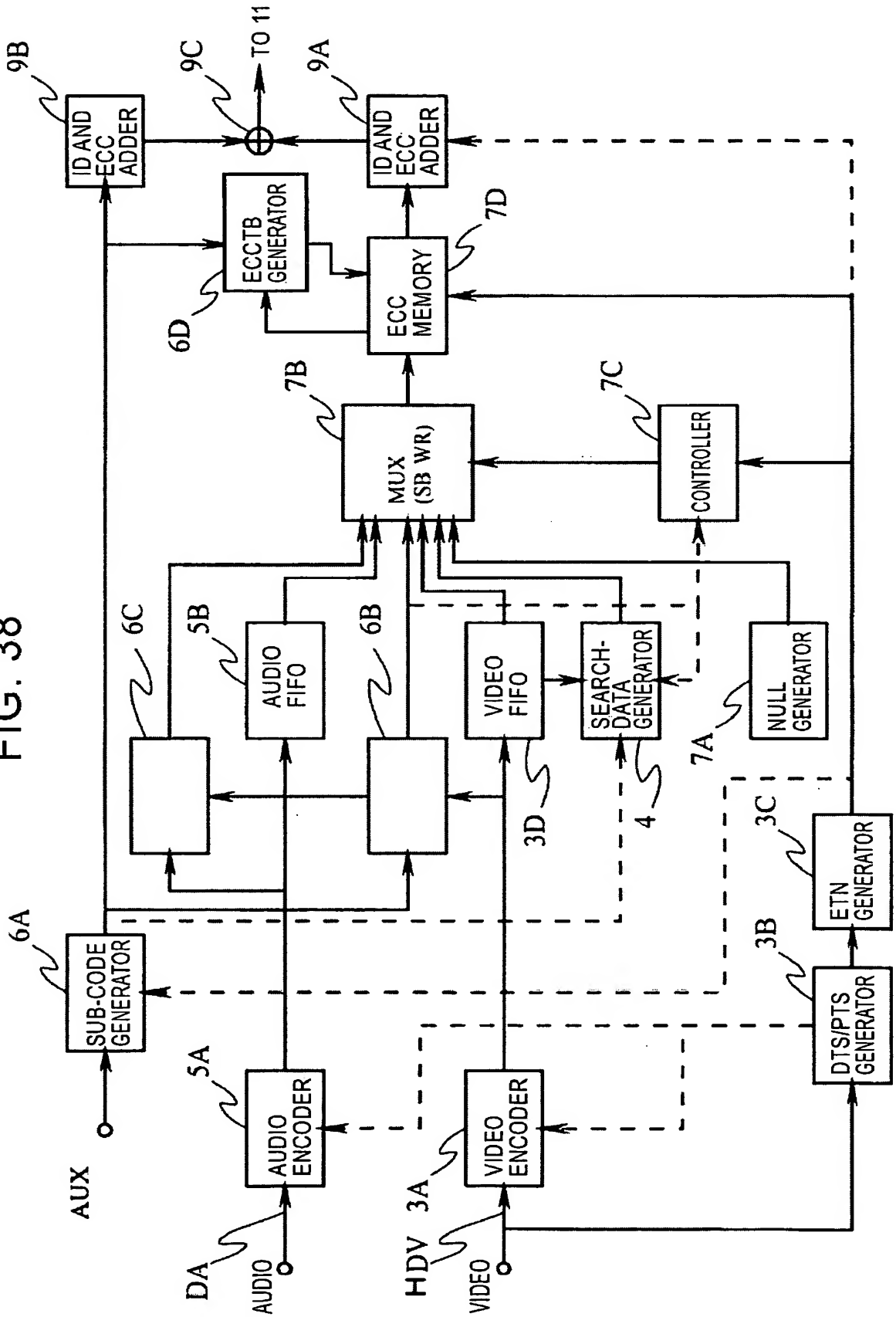

9B
ID AND ECC ADDER
9C
TO 11
9A
ID AND ECC ADDER
ECCTB GENERATOR
6D
ECC MEMORY
7D
7B
MUX (SB WR)
7C
CONTROLLER
6C
5B
AUDIO FIFO
6B
VIDEO FIFO
SEARCH-DATA GENERATOR
NULL GENERATOR
7A
3D
4
3C
ETN GENERATOR
6A
SUB-CODE GENERATOR
3B
DTS/PTS GENERATOR
5A
AUDIO ENCODER
VIDEO ENCODER
3A
AUX
DA
AUDIO
HDV
VIDEO

FIG. 39

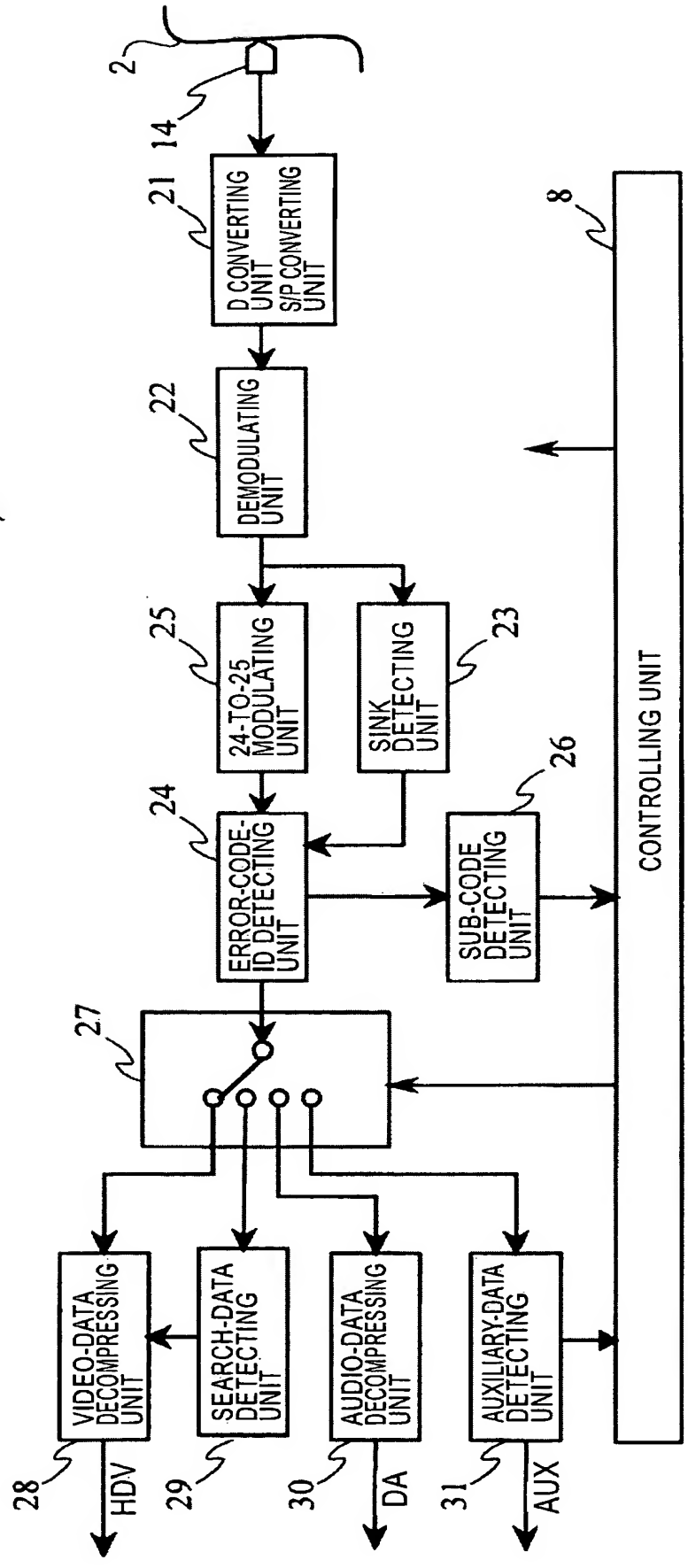
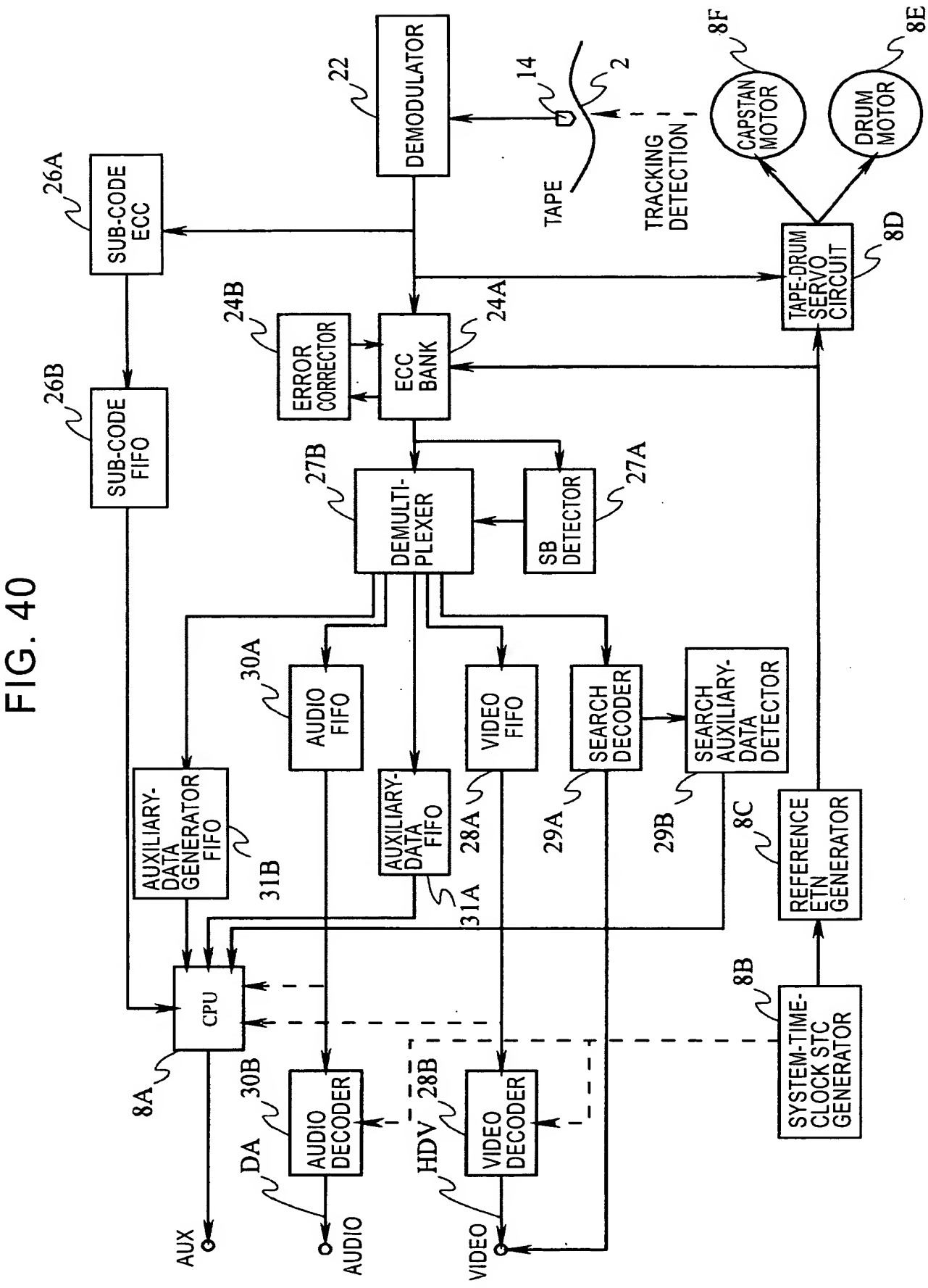

1
2
14
21
D CONVERTING UNIT
S/P CONVERTING UNIT
22
DEMODULATING UNIT
25
24-TO-25 MODULATING UNIT
23
SINK DETECTING UNIT
24
ERROR-CODE-ID DETECTING UNIT
26
SUB-CODE DETECTING UNIT
8
CONTROLLING UNIT
27
VIDEO-DATA DECOMPRESSING UNIT
SEARCH-DATA DETECTING UNIT
AUDIO-DATA DECOMPRESSING UNIT
AUXILIARY-DATA DETECTING UNIT
28
HDV
29
30
DA
31
AUX

FIG. 40


DEMODULATOR
22
14
2
TAPE
TRACKING DETECTION
CAPSTAN MOTOR
8F
DRUM MOTOR
8E
SUB-CODE ECC
26A
TAPE-DRUM SERVO CIRCUIT
8D
ERROR CORRECTOR
24B
ECC BANK
24A
SUB-CODE FIFO
26B
DEMULTI-PLEXER
27B
SB DETECTOR
27A
AUDIO FIFO
30A
VIDEO FIFO
SEARCH DECODER
SEARCH AUXILIARY-DATA DETECTOR
AUXILIARY-DATA GENERATOR FIFO
31B
AUXILIARY-DATA FIFO
28A
31A
29A
29B
8C
REFERENCE ETN GENERATOR
CPU
8A
8B
SYSTEM-TIME-CLOCK STC GENERATOR
AUDIO DECODER
30B
VIDEO DECODER
28B
DA
HDV
AUX
AUDIO
VIDEO

REFERENCE NUMERALS

1: VIDEO TAPE RECORDER
2: MAGNETIC TAPE
3: VIDEO-DATA COMPRESSING UNIT
3A: VIDEO ENCODER
3B: DTS/PTS GENERATOR
3C: ETN GENERATOR
3D, 28A: VIDEO FIFO
4: SEARCH-DATA GENERATING UNIT
5: AUDIO-DATA COMPRESSING UNIT
5A: AUDIO ENCODER
5B, 30A: AUDIO FIFO
6: AUXILIARY-DATA GENERATING UNIT
6A: SUB-CODE GENERATOR
6B: AUXILIARY-DATA GENERATOR FOR VIDEO
6C: AUXILIARY-DATA GENERATOR FOR AUDIO
6D: ECCTB GENERATOR
7: MULTIPLEXING UNIT
7A: NULL GENERATOR
7B: MULTIPLEXER
7C: CONTROLLER
7D: ECC MEMORY
8: CONTROLLING UNIT
8A: CENTRAL PROCESSING UNIT
8B: SYSTEM-TIME-CLOCK STC GENERATOR
8C: REFERENCE ETN GENERATOR
8D: TAPE-DRUM SERVO CIRCUIT
8E: DRUM MOTOR
8F: CAPSTAN MOTOR
9: ERROR-CODE ID ADDING UNIT
9A, 9B: ID AND ECC ADDER
9C: ADDER
10: SUB-CODE GENERATING UNIT
11: 24-TO-25 MODULATING UNIT
12: SINK ADDING UNIT
13: MODULATING UNIT AND P/S CONVERTING UNIT
14: MAGNETIC HEAD
21: DIGITAL CONVERTING UNIT AND S/P CONVERTING UNIT
22: DEMODULATING UNIT
23: SINK DETECTING UNIT
24: ERROR-CORRECTING ID DETECTING UNIT
24A: ECC BANK
24B: ERROR CORRECTOR
25: 25-TO-24 CONVERTING UNIT
26: SUB-CODE DETECTING UNIT
26A: SUB-CODE ECC
26B: SUB-CODE FIFO
27: SEPARATING UNIT
27A: SB DETECTOR
27B: DEMULTIPLEXER
28: VIDEO-DATA DECOMPRESSING UNIT
28B: VIDEO DECODER

29: SEARCH-DATA DETECTING UNIT
29A: SEARCH DECODER
29B: SEARCH AUXILIARY-DATA DETECTOR
30: AUDIO-DATA DECOMPRESSING UNIT
30B: AUDIO DECODER
31: AUXILIARY-DATA DETECTING UNIT
31A: AUXILIARY-DATA FIFO
31B: AUXILIARY-DATA GENERATOR FIFO